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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,314	07/17/2000	Mikio Kuwahara	NIT-209	7237
24956	7590	12/22/2003	EXAMINER	
MATTINGLY, STANGER & MALUR, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			MOORE, JAMES K	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 12/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/616,314

Applicant(s)

KUWAHARA ET AL.

Examiner

James K Moore

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5,9-12,15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 April 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. Applicant's arguments, see pages 2 and 3 of the Response filed October 30, 2003, with respect to the rejections of claims 2-5, 9-12, 15, and 16 under 35 U.S.C. 102(e) and 103(a) have been fully considered and are persuasive. Therefore, the rejections have been withdrawn. However, upon further consideration, new grounds of rejection are made in view of Bruckert et al. (U.S. Patent No. 6,226,317), and under 35 U.S.C. 112.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 16 includes the limitation "an automatic gain control circuit to which an output signal of the interference canceling circuit is supplied." The specification describes an automatic gain control circuit (3) and an interference canceling circuit (see Figures 1 and 6), but does not describe the interference canceling circuit as supplying an output signal to the automatic gain control circuit.

Claim Rejections - 35 USC § 102

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2, 9, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Bruckert et al.

Regarding claim 2, Bruckert discloses a wireless positioning method for estimating a position of a terminal by using reception timings of signals transmitted from first and second base stations in a cellular communication system. The method comprises a first step of measuring a reception timing of a received signal from the first base station having a power higher than that of a received signal from a second base station, a second step of canceling the received signal from the first base station, and a third step of measuring a reception timing of the received signal from the second base station after the second step. The second step comprises a fourth step of storing the received signals from the first and second base stations into a storing circuit in the terminal, a fifth step of forming a replica of the received signal of the first base station

from the stored signals, and a sixth step of subtracting the replica from the stored signals and overwriting the signals stored in the storing circuit with a result of the subtraction step. See col. 5, line 8 through col. 6, line 20.

Regarding claim 9, Bruckert discloses a wireless positioning apparatus (mobile subscriber unit 18). The apparatus comprises a signal processor (beacon cancellation engine 58) for canceling a received signal from a first base station whose reception power is higher than that of a received signal from a second base station in a cellular communication system, an inherent CPU for processing an output signal of the signal processor (determining location based on TOA measurements), a storing circuit (beacon signal sample and store stage 56) for storing the received signal from the first and second base stations, and a timing measurement circuit (TOA determinator 60) for measuring reception timings of the signals received from the first and second base stations based on signals stored in the storing circuit. The signal processor has a replica signal generating circuit for generating a replica of the received signal of the first base station from the signals stored in the storing circuit and a subtraction circuit for subtracting the replica from the stored signals. The stored signals are overwritten with a result of the subtraction and the timing measurement circuit measures the reception timing of the signal received from the second base station based on the overwritten signals in the storing circuit. See Figure 5 and col. 5, line 8 through col. 6, line 10.

Regarding claim 15, Bruckert discloses a base station transmission timing measuring apparatus (mobile subscriber unit 18). The apparatus comprises a storing circuit (beacon signal sample and store stage 56) for storing received signals from a first

and a second base station, a timing measuring circuit (TOA determinator 60) for measuring signal transmission timings of the first and second base stations from timings of signals received from the first and second base stations, and an interference canceling circuit (beacon cancellation engine 58) for canceling the received signal from the first base station whose reception power is higher than that of the received signal from the second base station. The signals stored in the storing circuit are replaced by signals which are a result of canceling and the timing measuring circuit measures the signal transmission timing of the second base station based on the replaced stored signals. See Figure 5 and col. 5, line 8 through col. 6, line 10.

Allowable Subject Matter

7. Claims 3-5 and 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Moore, whose telephone number is (703) 308-6042. The examiner can normally be reached on Monday-Friday from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold, can be reached at (703) 305-4379.

Art Unit: 2686

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Ken Moore

11/18/03

JKM


CHARLES APPIAH
PRIMARY EXAMINER